

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Shi et al.

Application Serial No.: Not assigned

Art Unit: Not assigned

Filed: Concurrently herewith

Examiner: Not assigned

For: 18 Human Secreted Proteins

Attorney Docket No.: PF512P1

STATEMENT UNDER 37 C.F.R. 1.821(f)

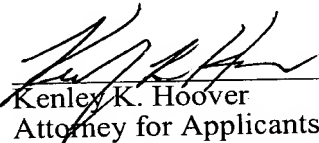
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants hereby certify that the hard copy of the sequence listing being filed concurrently herewith and the enclosed computer-readable form of such sequence listing are identical.

Respectfully submitted,

Date: January 25, 2001


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Attorney for Applicants

Reg. No. 40,302

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Rockville, Maryland 20850
Telephone: (301) 610-5771

KKH/SA/ur

09758826-012501

<211> 86

<212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic sequence with 4 tandem copies of the GAS binding site found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)), 18 nucleotides complementary to the SV40 early promoter, and a Xho I restriction site.

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<210> 4
 <211> 27
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic sequence complementary to the SV40 promoter; includes a Hind III restriction site.

<400> 4
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<210> 5
 <211> 271
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Protein_Bind
 <223> Synthetic promoter for use in biological assays; includes GAS binding sites found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)).

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<210> 6
 <211> 32
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Xho I restriction site.

<400> 6
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<210> 7
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 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic primer complementary to human genomic EGR-1 promoter
 sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Hind III
 restriction site.

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<210> 8
 <211> 12
 <212> DNA
 <213> Homo sapiens

<400> 8
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<210> 9
 <211> 73
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic primer with 4 tandem copies of the NF-KB binding site
 (GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the SV40
 early promoter sequence, and a XhoI restriction site.

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<210> 10
 <211> 256
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Protein_Bind
 <223> Synthetic promoter for use in biological assays; includes NF-KB
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<213> Homo sapiens

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<211> 2644

<212> DNA

<213> Homo sapiens

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<211> 1824

<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 20

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<212> DNA
<213> Homo sapiens

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<211> 1865

<212> DNA

<213> Homo sapiens

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<210> 24
 <211> 1297
 <212> DNA
 <213> Homo sapiens

<400> 24						60
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aagtacggga	agcccaacaa	gaggaaaagg	ttcaatgaag	ggctgtggga	gatccagaac	360
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cgggacgaac	tcacggaaga	catacccgct	cataaccggg	accaaggccg	ggcgggtcc	1260
cctctcctct	gactcgaacc	cagcgactga	taatagccaa	atctctaaac	gcattcttac	1297
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<210> 25
 <211> 577
 <212> DNA
 <213> Homo sapiens

<400> 25						60
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tcagtcaacg	gcgcctcact	ggctggctta	gcccacggga	atgtcctgaa	ggttctgcac	300
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<210> 26
 <211> 675

<212> DNA
<213> Homo sapiens

<400> 26
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aaaaaaaaa aaaaaa 675

<210> 27
<211> 1558
<212> DNA
<213> Homo sapiens

<400> 27
cgagaaaaccg cgcttccgct tctggctgcga gagacctcgg agaccgcgcc ggggagacgg 60
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cttgcgtggc tactgcctgc tccttgccct tgccctctggc ctggctcctga gtcgcgtgcc 360
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<210> 28
<211> 563
<212> DNA
<213> Homo sapiens

<400> 28

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ggccctggaa	gttgccactc	cagtggccac	cagccttgtc	ctaataaaat	taagttgcat	420
cattttgtct	gactaggtgt	ccttctataa	tattatgggg	tgaggggggg	tggtatggag	480
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<210> 29
 <211> 2139
 <212> DNA
 <213> Homo sapiens

<400> 29						
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<210> 30
 <211> 184

<212> PRT

<213> Homo sapiens

<400> 30

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Pro Gly Arg Gly Gln Thr Gln Gln Glu Glu Glu Glu Glu Asp Glu Asp
 20 25 30

His Gly Pro Asp Asp Tyr Asp Glu Glu Asp Glu Asp Glu Val Glu Glu
 35 40 45

Glu Glu Thr Asn Arg Leu Pro Gly Gly Arg Ser Arg Val Leu Leu Arg
 50 55 60

Cys Tyr Thr Cys Lys Ser Leu Pro Arg Asp Glu Arg Cys Asn Leu Thr
 65 70 75 80

Gln Asn Cys Ser His Gly Gln Thr Cys Thr Thr Leu Ile Ala His Gly
 85 90 95

Asn Thr Glu Ser Gly Leu Leu Thr Thr His Ser Thr Trp Cys Thr Asp
 100 105 110

Ser Cys Gln Pro Ile Thr Lys Thr Val Glu Gly Thr Gln Val Thr Met
 115 120 125

Thr Cys Cys Gln Ser Ser Leu Cys Asn Val Pro Pro Trp Gln Ser Ser
 130 135 140

Arg Val Gln Asp Pro Thr Gly Lys Gly Ala Gly Gly Pro Arg Gly Ser
 145 150 155 160

Ser Glu Thr Val Gly Ala Ala Leu Leu Leu Asn Leu Leu Ala Gly Leu
 165 170 175

Gly Ala Met Gly Ala Arg Arg Pro
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<210> 31

<211> 352

<212> PRT

<213> Homo sapiens

<400> 31

Met Val Glu Ala Leu Arg Ala Gly Ser Ala Arg Leu Val Ala Ala Pro
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Val Ala Thr Ala Asn Pro Ala Arg Cys Leu Ala Leu Asn Val Ser Leu
 20 25 30

Arg Glu Trp Thr Ala Arg Tyr Gly Ala Ala Pro Ala Ala Pro Arg Cys
 35 40 45

Asp Ala Leu Asp Gly Asp Ala Val Val Leu Leu Arg Ala Arg Asp Leu
 50 55 60

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Phe Asn Leu Ser Ala Pro Leu Ala Arg Pro Val Gly Thr Ser Leu Phe
 65 70 75 80
 Leu Gln Thr Ala Leu Arg Gly Trp Ala Val Gln Leu Leu Asp Leu Thr
 85 90 95
 Phe Ala Ala Ala Arg Gln Pro Pro Leu Ala Thr Ala His Ala Arg Trp
 100 105 110
 Lys Ala Glu Arg Glu Gly Arg Ala Arg Arg Ala Ala Leu Leu Arg Ala
 115 120 125
 Leu Gly Ile Arg Leu Val Ser Trp Glu Gly Gly Arg Leu Glu Trp Phe
 130 135 140
 Gly Cys Asn Lys Glu Thr Thr Arg Cys Phe Gly Thr Val Val Gly Asp
 145 150 155 160
 Thr Pro Ala Tyr Leu Tyr Glu Glu Arg Trp Thr Pro Pro Cys Cys Leu
 165 170 175
 Arg Ala Leu Arg Glu Thr Ala Arg Tyr Val Val Gly Val Leu Glu Ala
 180 185 190
 Ala Gly Val Arg Tyr Trp Leu Glu Gly Gly Ser Leu Leu Gly Ala Ala
 195 200 205
 Arg His Gly Asp Ile Ile Pro Trp Asp Tyr Asp Val Asp Leu Gly Ile
 210 215 220
 Tyr Leu Glu Asp Val Gly Asn Cys Glu Gln Leu Arg Gly Ala Glu Ala
 225 230 235 240
 Gly Ser Val Val Asp Glu Arg Gly Phe Val Trp Glu Lys Ala Val Glu
 245 250 255
 Gly Asp Phe Phe Arg Val Gln Tyr Ser Glu Ser Asn His Leu His Val
 260 265 270
 Asp Leu Trp Pro Phe Tyr Pro Arg Asn Gly Val Met Thr Lys Asp Thr
 275 280 285
 Trp Leu Asp His Arg Gln Asp Val Glu Phe Pro Glu His Phe Leu Gln
 290 295 300
 Pro Leu Val Pro Leu Pro Phe Ala Gly Phe Val Ala Gln Ala Pro Asn
 305 310 315 320
 Asn Tyr Arg Arg Phe Leu Glu Leu Lys Phe Gly Pro Gly Val Ile Glu
 325 330 335
 Asn Pro Gln Tyr Pro Asn Pro Ala Leu Leu Ser Leu Thr Gly Ser Gly
 340 345 350

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 T05270 9288960

<210> 32
 <211> 448
 <212> PRT
 <213> Homo sapiens

<400> 32
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 Val Val Gly Ala Ser Thr Pro Gly Thr Val Val Arg Leu Asn Lys Ala
 20 25 30
 Ala Leu Ser Tyr Val Ser Glu Ile Gly Lys Ala Pro Leu Gln Arg Ala
 35 40 45
 Leu Gln Val Thr Val Pro His Phe Leu Asp Trp Ser Gly Glu Ala Leu
 50 55 60
 Gln Pro Thr Arg Ile Arg Ile Leu Asn Val His Val Pro Arg Leu His
 65 70 75 80
 Leu Lys Phe Ile Ala Gly Phe Gly Val Arg Leu Leu Ala Ala Ala Asn
 85 90 95
 Phe Thr Phe Lys Val Phe Arg Ala Pro Glu Pro Leu Glu Leu Thr Leu
 100 105 110
 Pro Val Glu Leu Leu Ala Asp Thr Arg Val Thr Gln Ser Ser Ile Arg
 115 120 125
 Thr Pro Val Val Ser Ile Ser Ala Cys Ser Leu Phe Ser Gly His Ala
 130 135 140
 Asn Glu Phe Asp Gly Ser Asn Ser Thr Ser His Ala Leu Leu Val Leu
 145 150 155 160
 Val Gln Lys His Ile Lys Ala Val Leu Ser Asn Lys Leu Cys Leu Ser
 165 170 175
 Ile Ser Asn Leu Val Gln Gly Val Asn Val His Leu Gly Thr Leu Ile
 180 185 190
 Gly Leu Asn Pro Val Gly Pro Glu Ser Gln Ile Arg Tyr Ser Met Val
 195 200 205
 Ser Val Pro Thr Val Thr Ser Asp Tyr Ile Ser Leu Glu Val Asn Ala
 210 215 220
 Val Leu Phe Leu Leu Gly Lys Pro Ile Ile Leu Pro Thr Asp Ala Thr
 225 230 235 240
 Pro Phe Val Leu Pro Arg His Val Gly Thr Glu Gly Ser Met Ala Thr
 245 250 255
 Val Gly Leu Ser Gln Gln Leu Phe Asp Ser Ala Leu Leu Leu Leu Gln
 260 265 270

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Lys Ala Gly Ala Leu Asn Leu Asp Ile Thr Gly Gln Leu Arg Ser Asp
 275 280 285
 Asp Asn Leu Leu Asn Thr Ser Ala Leu Gly Arg Leu Ile Pro Glu Val
 290 295 300
 Ala Arg Gln Phe Pro Glu Pro Met Pro Val Val Leu Lys Val Arg Leu
 305 310 315 320
 Gly Ala Thr Pro Val Ala Met Leu His Thr Asn Asn Ala Thr Leu Arg
 325 330 335
 Leu Gln Pro Phe Val Glu Val Leu Ala Thr Ala Ser Asn Ser Ala Phe
 340 345 350
 Gln Ser Leu Phe Ser Leu Asp Val Val Val Asn Leu Arg Leu Gln Leu
 355 360 365
 Ser Val Ser Lys Val Lys Leu Gln Gly Thr Thr Ser Val Leu Gly Asp
 370 375 380
 Val Gln Leu Thr Val Ala Ser Ser Asn Val Gly Phe Ile Asp Thr Asp
 385 390 395 400
 Gln Val Arg Thr Leu Met Gly Thr Val Phe Glu Lys Pro Leu Leu Asp
 405 410 415
 His Leu Asn Ala Leu Leu Ala Met Gly Ile Ala Leu Pro Gly Val Val
 420 425 430
 Asn Leu His Tyr Val Pro Leu Arg Ser Leu Ser Met Arg Ala Thr Trp
 435 440 445

<210> 33
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 33
 Met Glu Pro Glu Glu Gly Thr Pro Leu Trp Arg Leu Gln Lys Leu Pro
 1 5 10 15
 Ala Glu Leu Gly Pro Gln Leu Leu His Lys Ile Ile Asp Gly Ile Cys
 20 25 30
 Gly Arg Ala Tyr Pro Val Tyr Gln Asp Tyr His Thr Val Trp Glu Ser
 35 40 45
 Glu Glu Trp Met His Val Leu Glu Asp Ile Ala Lys Phe Phe Lys Ala
 50 55 60
 Ile Val Gly Lys Asn Leu Pro Asp Glu Glu Ile Phe Gln Gln Leu Asn
 65 70 75 80

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Gln Leu Asn Ser Leu His Gln Glu Thr Ile Met Lys Cys Val Lys Ser
85 90 95

Arg Lys Asp Glu Ile Lys Gln Ala Leu Ser Arg Glu Ile Val Ala Ile
100 105 110

Ser Ser Ala Gln Leu Gln Asp Phe Asp Trp Gln Val Lys Leu Ala Leu
115 120 125

Ser Ser Asp Lys Ile Ala Ala Leu Arg Met Pro Leu Leu Ser Leu His
130 135 140

Leu Asp Val Lys Glu Asn Gly Glu Val Lys Pro Tyr Ser Ile Glu Met
145 150 155 160

Ser Arg Glu Glu Leu Gln Asn Leu Ile Gln Ser Leu Glu Ala Ala Asn
165 170 175

Lys Val Val Leu Gln Leu Lys
180

<210> 34

<211> 121

<212> PRT

<213> Homo sapiens

<400> 34

Met Pro Cys Gly Arg Gln His Leu Gln Asn Leu Asp Asp Ala Val Asn
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Gly Ser Ala Trp Thr Ile Leu Leu Leu Thr Glu Asn Phe Leu Arg Asp
20 25 30

Thr Trp Cys Asn Phe Gln Phe Tyr Thr Ser Leu Met Asn Ser Val Asn
35 40 45

Arg Gln His Lys Tyr Asn Ser Val Ile Pro Met Arg Pro Leu Asn Asn
50 55 60

Pro Leu Pro Arg Glu Arg Thr Pro Phe Ala Leu Gln Thr Ile Asn Ala
65 70 75 80

Leu Glu Glu Glu Ser Arg Gly Phe Pro Thr Gln Val Glu Arg Ile Phe
85 90 95

Gln Glu Ser Val Tyr Lys Thr Gln Gln Thr Ile Trp Lys Glu Thr Arg
100 105 110

Asn Met Val Gln Arg Gln Phe Ile Ala
115 120

<210> 35

<211> 251

<212> PRT

<213> Homo sapiens

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<400> 35

Met Leu Phe His Tyr Asp Trp Ile Ser Ile Pro Leu Val Tyr Thr Gln
 1 5 10 15

Val Val Thr Ile Ala Val Tyr Ser Phe Phe Ala Leu Ser Leu Val Gly
 20 25 30

Arg Gln Phe Val Glu Pro Glu Ala Gly Ala Ala Lys Pro Gln Lys Leu
 35 40 45

Leu Lys Pro Gly Gln Glu Pro Ala Pro Ala Leu Gly Asp Pro Asp Met
 50 55 60

Tyr Val Pro Leu Thr Thr Leu Leu Gln Phe Phe Phe Tyr Ala Gly Trp
 65 70 75 80

Leu Lys Val Ala Glu Gln Ile Ile Asn Pro Phe Gly Glu Asp Asp Asp
 85 90 95

Asp Phe Glu Thr Asn Gln Leu Ile Asp Arg Asn Leu Gln Val Ser Leu
 100 105 110

Leu Ser Val Asp Glu Met Tyr Gln Asn Leu Pro Pro Ala Glu Lys Asp
 115 120 125

Gln Tyr Trp Asp Glu Asp Gln Pro Gln Pro Pro Tyr Thr Val Ala Thr
 130 135 140

Ala Ala Glu Ser Leu Arg Pro Ser Phe Leu Gly Ser Thr Phe Asn Leu
 145 150 155 160

Arg Met Ser Asp Asp Pro Glu Gln Ser Leu Gln Val Glu Ala Ser Pro
 165 170 175

Gly Ser Gly Arg Pro Ala Pro Ala Ala Gln Thr Pro Leu Leu Gly Arg
 180 185 190

Phe Leu Gly Val Gly Ala Pro Ser Pro Ala Ile Ser Leu Arg Asn Phe
 195 200 205

Gly Arg Val Arg Gly Thr Pro Arg Pro Pro His Leu Leu Arg Phe Arg
 210 215 220

Ala Glu Glu Gly Gly Asp Pro Glu Ala Ala Ala Arg Ile Glu Glu Glu
 225 230 235 240

Ser Ala Glu Ser Gly Asp Glu Ala Leu Glu Pro
 245 250

<210> 36

<211> 125

<212> PRT

<213> Homo sapiens

<400> 36

Met Arg Pro Gly Lys Lys Val Leu Val Met Gly Ile Val Asp Leu Asn
 1 5 10 15

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Pro Glu Ser Phe Ala Ile Ser Leu Thr Cys Gly Asp Ser Glu Asp Pro
 20 25 30

Pro Ala Asp Val Ala Ile Glu Leu Lys Ala Val Phe Thr Asp Arg Gln
 35 40 45

Leu Leu Arg Asn Ser Cys Ile Ser Gly Glu Arg Gly Glu Glu Gln Ser
 50 55 60

Ala Ile Pro Tyr Phe Pro Phe Ile Pro Asp Gln Pro Phe Arg Val Glu
 65 70 75 80

Ile Leu Cys Glu His Pro Arg Phe Arg Val Phe Val Asp Gly His Gln
 85 90 95

Leu Phe Asp Phe Tyr His Arg Ile Gln Thr Leu Ser Ala Ile Asp Thr
 100 105 110

Ile Lys Ile Asn Gly Asp Leu Gln Ile Thr Lys Leu Gly
 115 120 125

<210> 37
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 37
 Met Ile Ser Ile His Asn Glu Glu Glu Asn Ala Phe Ile Leu Asp Thr
 1 5 10 15

Leu Lys Lys Gln Trp Lys Gly Pro Asp Asp Ile Leu Leu Gly Met Phe
 20 25 30

Tyr Asp Thr Asp Asp Ala Ser Phe Lys Trp Phe Asp Asn Ser Asn Met
 35 40 45

Thr Phe Asp Lys Trp Thr Asp Gln Asp Asp Asp Glu Asp Leu Val Asp
 50 55 60

Thr Cys Ala Phe Leu His Ile Lys Thr Gly Glu Trp Lys Lys Gly Asn
 65 70 75 80

Cys Glu Val Ser Ser Val Glu Gly Thr Leu Cys Lys Thr Ala Ile Pro
 85 90 95

Tyr Lys Arg Lys Tyr Leu Ser Asp Asn His Ile Leu Ile Ser Ala Leu
 100 105 110

Val Ile Ala Ser Thr Val Ile Leu Thr Val Leu Gly Ala Ile Ile Trp
 115 120 125

Phe Leu Tyr Lys Lys His Ser Asp Ser Arg Phe Thr Thr Val Phe Ser
 130 135 140

Thr Ala Pro Gln Ser Pro Tyr Asn Glu Asp Cys Val Leu Val Val Gly
 145 150 155 160

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Glu Glu Asn Glu Tyr Pro Val Gln Phe Asp
165 170

<210> 38

<211> 535

<212> PRT

<213> Homo sapiens

<400> 38

Met Leu Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Cys Gly Arg Val
1 5 10 15

Gly Ala Lys Glu Gln Lys Asp Tyr Leu Leu Thr Met Gln Lys Ser Val
20 25 30

Thr Val Gln Glu Gly Leu Cys Val Ser Val Leu Cys Ser Phe Ser Tyr
35 40 45

Pro Gln Asn Gly Trp Thr Ala Ser Asp Pro Val His Gly Tyr Trp Phe
50 55 60

Arg Ala Gly Asp His Val Ser Arg Asn Ile Pro Val Ala Thr Asn Asn
65 70 75 80

Pro Ala Arg Ala Val Gln Glu Glu Thr Arg Asp Arg Phe His Leu Leu
85 90 95

Gly Asp Pro Gln Asn Lys Asp Cys Thr Leu Ser Ile Arg Asp Thr Arg
100 105 110

Glu Ser Asp Ala Gly Thr Tyr Val Phe Cys Val Glu Arg Gly Asn Met
115 120 125

Lys Trp Asn Tyr Lys Tyr Asp Gln Leu Ser Val Asn Val Thr Ala Ser
130 135 140

Gln Asp Leu Leu Ser Arg Tyr Arg Leu Glu Val Pro Glu Ser Val Thr
145 150 155 160

Val Gln Glu Gly Leu Cys Val Ser Val Pro Cys Ser Val Leu Tyr Pro
165 170 175

His Tyr Asn Trp Thr Ala Ser Ser Pro Val Tyr Gly Ser Trp Phe Lys
180 185 190

Glu Gly Ala Asp Ile Pro Trp Asp Ile Pro Val Ala Thr Asn Thr Pro
195 200 205

Ser Gly Lys Val Gln Glu Asp Thr His Gly Arg Phe Leu Leu Leu Gly
210 215 220

Asp Pro Gln Thr Asn Asn Cys Ser Leu Ser Ile Arg Asp Ala Arg Lys
225 230 235 240

Gly Asp Ser Gly Lys Tyr Tyr Phe Gln Val Glu Arg Gly Ser Arg Lys
245 250 255

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Trp Asn Tyr Ile Tyr Asp Lys Leu Ser Val His Val Thr Ala Leu Thr
 260 265 270
 His Met Pro Thr Phe Ser Ile Pro Gly Thr Leu Glu Ser Gly His Pro
 275 280 285
 Arg Asn Leu Thr Cys Ser Val Pro Trp Ala Cys Glu Gln Gly Thr Pro
 290 295 300
 Pro Thr Ile Thr Trp Met Gly Ala Ser Val Ser Ser Leu Asp Pro Thr
 305 310 315 320
 Ile Thr Arg Ser Ser Met Leu Ser Leu Ile Pro Gln Pro Gln Asp His
 325 330 335
 Gly Thr Ser Leu Thr Cys Gln Val Thr Leu Pro Gly Ala Gly Val Thr
 340 345 350
 Met Thr Arg Ala Val Arg Leu Asn Ile Ser Tyr Pro Pro Gln Asn Leu
 355 360 365
 Thr Met Thr Val Phe Gln Gly Asp Gly Thr Ala Ser Thr Thr Leu Arg
 370 375 380
 Asn Gly Ser Ala Leu Ser Val Leu Glu Gly Gln Ser Leu His Leu Val
 385 390 395 400
 Cys Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Trp Thr Trp Gly
 405 410 415
 Ser Leu Thr Leu Ser Pro Ser Gln Ser Ser Asn Leu Gly Val Leu Glu
 420 425 430
 Leu Pro Arg Val His Val Lys Asp Glu Gly Glu Phe Thr Cys Arg Ala
 435 440 445
 Gln Asn Pro Leu Gly Ser Gln His Ile Ser Leu Ser Leu Ser Leu Gln
 450 455 460
 Asn Glu Tyr Thr Gly Lys Met Arg Pro Ile Ser Gly Val Thr Leu Gly
 465 470 475 480
 Ala Phe Gly Gly Ala Gly Ala Thr Ala Leu Val Phe Leu Tyr Phe Cys
 485 490 495
 Ile Ile Phe Val Val Val Arg Ser Cys Arg Lys Lys Ser Ala Arg Pro
 500 505 510
 Ala Val Ala Trp Gly Ile Gln Ala Trp Arg Thr Gln Thr Leu Ser Gly
 515 520 525
 Ala Gln Pro Leu Arg Asp Pro
 530 535

<210> 39

<211> 274

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<212> PRT

<213> Homo sapiens

<400> 39

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Met Ser Ser Asn Gly Ile Pro Glu Cys Tyr Ala Glu Glu Asp Glu Phe
 1           5           10           15

Ser Gly Leu Glu Thr Asp Thr Ala Val Pro Thr Glu Glu Ala Tyr Val
      20           25           30

Ile Tyr Asp Glu Asp Tyr Glu Phe Glu Thr Ser Arg Pro Pro Thr Thr
      35           40           45

Thr Glu Pro Ser Thr Thr Ala Thr Thr Pro Arg Val Ile Pro Glu Glu
      50           55           60

Gly Ala Ile Ser Ser Phe Pro Glu Glu Glu Phe Asp Leu Ala Gly Arg
 65           70           75           80

Lys Arg Phe Val Ala Pro Tyr Val Thr Tyr Leu Asn Lys Asp Pro Ser
      85           90           95

Ala Pro Cys Ser Leu Thr Asp Ala Leu Asp His Phe Gln Val Asp Ser
      100           105           110

Leu Asp Glu Ile Ile Pro Asn Asp Leu Lys Lys Ser Asp Leu Pro Pro
      115           120           125

Gln His Ala Pro Arg Asn Ile Thr Val Val Ala Val Glu Gly Cys His
      130           135           140

Ser Phe Val Ile Val Asp Trp Asp Lys Ala Thr Pro Gly Asp Val Val
      145           150           155           160

Thr Gly Tyr Leu Val Tyr Ser Ala Ser Tyr Glu Asp Phe Ile Arg Asn
      165           170           175

Lys Trp Ser Thr Gln Ala Ser Ser Val Thr His Leu Pro Ile Glu Asn
      180           185           190

Leu Lys Pro Asn Thr Arg Tyr Tyr Phe Lys Val Gln Ala Gln Asn Pro
      195           200           205

His Gly Tyr Gly Pro Ile Ser Pro Ser Val Ser Phe Val Thr Glu Ser
      210           215           220

Asp Asn Pro Leu Leu Val Val Arg Pro Pro Gly Gly Glu Pro Ile Trp
      225           230           235           240

Ile Pro Phe Ala Phe Lys His Asp Pro Ser Tyr Thr Asp Cys His Gly
      245           250           255

Arg Gln Tyr Val Lys Arg Thr Leu Val Ser Lys Val Arg Gly Ser Trp
      260           265           270

Ser Leu

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<210> 40
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 <212> PRT
 <213> Homo sapiens

<400> 40
 Met Pro Ala Leu His Thr Leu Asn Leu Asp His Asn Leu Ile Asp Ala
 1 5 10 15
 Leu Pro Pro Gly Ala Phe Ala Gln Leu Gly Gln Leu Ser Arg Leu Asp
 20 25 30
 Leu Thr Ser Asn Arg Leu Ala Thr Leu Ala Pro Asp Pro Leu Phe Ser
 35 40 45
 Arg Gly Arg Asp Ala Glu Ala Ser Pro Ala Pro Leu Val Leu Ser Phe
 50 55 60
 Ser Gly Asn Pro Leu His Cys Asn Cys Glu Leu Leu Trp Leu Arg Arg
 65 70 75 80
 Leu Ala Arg Pro Asp Asp Leu Glu Thr Cys Ala Ser Pro Pro Gly Leu
 85 90 95
 Ala Gly Arg Tyr Phe Trp Ala Val Pro Glu Gly Glu Phe Ser Cys Glu
 100 105 110
 Pro Pro Leu Ile Ala Arg His Thr Gln Arg Leu Trp Val Leu Glu Gly
 115 120 125
 Gln Arg Ala Thr Leu Arg Cys Arg Ala Leu Gly Asp Pro Ala Pro Thr
 130 135 140
 Met His Trp Val Gly Pro Asp Asp Arg Leu Val Gly Asn Ser Ser Arg
 145 150 155 160
 Ala Arg Ala Phe Pro Asn Gly Thr Leu Glu Ile Gly Ala Thr Gly Ala
 165 170 175
 Gly Asp Ala Gly Gly Tyr Thr Cys Ile Ala Thr Asn Pro Ala Gly Glu
 180 185 190
 Ala Thr Ala Arg Val Glu Leu Arg Val Leu Ala Leu Pro His Gly Gly
 195 200 205
 Asn Ser Ser Ala Glu Gly Gly Arg Pro Gly Pro Ser Asp Ile Ala Ala
 210 215 220
 Ser Ala Arg Thr Ala Ala Glu Gly Glu Gly Thr Leu Glu Ser Glu Pro
 225 230 235 240
 Ala Val Gln Val Thr Glu Val Thr Ala Thr Ser Gly Leu Val Ser Trp
 245 250 255
 Gly Pro Gly Arg Pro Ala Asp Pro Val Trp Met Phe Gln Ile Gln Tyr
 260 265 270

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Asn Ser Ser Glu Asp Glu Thr Leu Ile Tyr Arg Ile Val Pro Ala Ser
 275 280 285
 Ser His His Phe Leu Leu Lys His Leu Val Pro Gly Ala Asp Tyr Asp
 290 295 300
 Leu Cys Leu Leu Ala Leu Ser Pro Ala Ala Gly Pro Ser Asp Leu Thr
 305 310 315 320
 Ala Thr Arg Leu Leu Gly Cys Ala His Phe Ser Thr Leu Pro Ala Ser
 325 330 335
 Pro Leu Cys His Ala Leu Gln Ala His Val Leu Gly Gly Thr Leu Thr
 340 345 350
 Val Ala Val Gly Gly Val Leu Val Ala Ala Leu Leu Val Phe Thr Val
 355 360 365
 Ala Leu Leu Val Arg Gly Arg Gly Ala Gly Asn Gly Arg Leu Pro Leu
 370 375 380
 Lys Leu Ser His Val Gln Ser Gln Thr Asn Gly Gly Pro Ser Pro Thr
 385 390 395 400
 Pro Lys Ala His Pro Pro Arg Ser Pro Pro Pro Arg Pro Gln Arg Ser
 405 410 415
 Cys Ser Leu Asp Leu Gly Asp Ala Gly Cys Tyr Gly Tyr Ala Arg Arg
 420 425 430
 Leu Gly Gly Ala Trp Ala Arg Arg Ser His Ser Val His Gly Gly Leu
 435 440 445
 Leu Gly Ala Gly Cys Arg Gly Val Gly Gly Ser Ala Glu Arg Leu Glu
 450 455 460
 Glu Ser Val Val
 465

<210> 41
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 41
 Met Ala Arg Pro Arg Pro Arg Glu Tyr Lys Ala Gly Asp Leu Val Phe
 1 5 10 15
 Ala Lys Met Lys Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Glu Leu
 20 25 30
 Pro Glu Gly Ala Val Lys Pro Pro Ala Asn Lys Tyr Pro Ile Phe Phe
 35 40 45
 Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro
 50 55 60

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Tyr Lys Glu Tyr Lys Asp Lys Phe Gly Lys Ser Asn Lys Arg Lys Gly
 65 70 75 80
 Phe Asn Glu Gly Leu Trp Glu Ile Glu Asn Asn Pro Gly Val Lys Phe
 85 90 95
 Thr Gly Tyr Gln Ala Ile Gln Gln Gln Ser Ser Ser Glu Thr Glu Gly
 100 105 110
 Glu Gly Gly Asn Thr Ala Asp Ala Ser Ser Glu Glu Glu Gly Asp Arg
 115 120 125
 Val Glu Glu Asp Gly Lys Gly Lys Arg Lys Asn Glu Lys Ala Gly Ser
 130 135 140
 Lys Arg Lys Lys Ser Tyr Thr Ser Lys Lys Ser Ser Lys Gln Ser Arg
 145 150 155 160
 Lys Ser Pro Gly Asp Glu Asp Asp Lys Asp Cys Lys Glu Glu Glu Asn
 165 170 175
 Lys Ser Ser Ser Glu Gly Gly Asp Ala Gly Asn Asp Thr Arg Asn Thr
 180 185 190
 Thr Ser Asp Leu Gln Lys Thr Ser Glu Gly Thr
 195 200

 <210> 42
 <211> 253
 <212> PRT
 <213> Homo sapiens

 <400> 42
 Met Arg Ser Gly Lys Met Ala Pro Lys Pro Gln Ser Arg Cys Thr Ser
 1 5 10 15
 Thr Arg Ser Ala Gly Glu Ala Pro Ser Glu Asn Gln Ser Pro Ser Lys
 20 25 30
 Gly Pro Glu Glu Ala Ser Ser Glu Val Gln Asp Thr Asn Glu Val His
 35 40 45
 Val Pro Gly Asp Gln Asp Glu Pro Gln Thr Leu Gly Lys Lys Gly Ser
 50 55 60
 Lys Asn Asn Ile Ser Val Tyr Met Thr Leu Asn Gln Lys Lys Ser Asp
 65 70 75 80
 Ser Ser Ser Ala Ser Val Cys Ser Ile Asp Ser Thr Asp Asp Leu Lys
 85 90 95
 Ser Ser Asn Ser Glu Cys Ser Ser Ser Glu Ser Phe Asp Phe Pro Pro
 100 105 110
 Gly Ser Met His Ala Pro Ser Thr Ser Ser Thr Ser Ser Ser Lys
 115 120 125

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Glu Glu Lys Lys Leu Ser Asn Ser Leu Lys Met Lys Val Phe Ser Lys
130 135 140

Asn Val Ser Lys Cys Val Thr Pro Asp Gly Arg Thr Ile Cys Val Gly
145 150 155 160

Asp Ile Val Trp Ala Lys Ile Tyr Gly Phe Pro Trp Trp Pro Ala Arg
165 170 175

Ile Leu Thr Ile Thr Val Ser Arg Lys Asp Asn Gly Leu Leu Val Arg
180 185 190

Gln Glu Ala Arg Ile Ser Trp Phe Gly Ser Pro Thr Thr Ser Phe Leu
195 200 205

Ala Leu Ser Gln Leu Ser Pro Phe Leu Glu Asn Phe Gln Ser Arg Phe
210 215 220

Asn Lys Lys Arg Lys Gly Leu Tyr Arg Lys Ala Ile Thr Glu Ala Ala
225 230 235 240

Lys Ala Ala Lys Gln Leu Thr Pro Glu Val Arg Ala Cys
245 250

<210> 43

<211> 314

<212> PRT

<213> Homo sapiens

<400> 43

Met Pro His Ala Phe Lys Pro Gly Asp Leu Val Phe Ala Lys Met Lys
1 5 10 15

Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Asp Ile Ala Asp Gly Ala
20 25 30

Val Lys Pro Pro Pro Asn Lys Tyr Pro Ile Phe Phe Phe Gly Thr His
35 40 45

Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr Asp Lys Cys
50 55 60

Lys Asp Lys Tyr Gly Lys Pro Asn Lys Arg Lys Gly Phe Asn Glu Gly
65 70 75 80

Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser Ala Pro Pro
85 90 95

Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn Pro Ala Asp
100 105 110

Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val Met Ala Val
115 120 125

Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu Ser Asp Ser
130 135 140

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Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg Lys Thr Pro
 145 150 155 160
 Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala Ser Ser Asp
 165 170 175
 Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn Ser Glu Ser
 180 185 190
 Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr Pro Glu Lys
 195 200 205
 Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly Gly Arg Lys
 210 215 220
 Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys Ala Asp Ser
 225 230 235 240
 Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser Ala Ser Ser
 245 250 255
 Ser Ser Ser Ser Ser Ser Ser Ser Asp Ser Asp Val Ser Val Lys Lys
 260 265 270
 Pro Pro Arg Gly Arg Lys Pro Thr Glu Lys Pro Leu Pro Lys Pro Arg
 275 280 285
 Gly Arg Lys Pro Lys Pro Glu Arg Pro Pro Ser Ser Ser Ser Ser Asp
 290 295 300
 Ser Asp Ser Asp Glu Val Asp Arg Ile Thr
 305 310

 <210> 44
 <211> 86
 <212> PRT
 <213> Homo sapiens

 <400> 44
 Met Asn Arg Gly Asp Phe Leu Leu Ser Val Asn Gly Ala Ser Leu Ala
 1 5 10 15
 Gly Leu Ala His Gly Asn Val Leu Lys Val Leu His Gln Ala Gln Leu
 20 25 30
 His Lys Asp Ala Leu Val Val Ile Lys Lys Gly Met Asp Gln Pro Arg
 35 40 45
 Pro Ser Ala Arg Gln Glu Pro Pro Thr Ala Asn Gly Lys Gly Leu Leu
 50 55 60
 Ser Arg Lys Thr Ile Pro Leu Glu Pro Gly Ile Gly Lys Met Ile Ile
 65 70 75 80
 Ser Thr Thr Ser Arg Leu
 85

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<210> 45
 <211> 167
 <212> PRT
 <213> Homo sapiens

<400> 45
 Met Ala Ala Ser Val Cys Ser Gly Leu Leu Gly Pro Arg Val Leu Ser
 1 5 10 15
 Trp Ser Arg Glu Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro
 20 25 30
 Val Cys Ala Lys Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp
 35 40 45
 Lys Pro Val Thr Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His
 50 55 60
 Arg Lys Gly Trp Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp
 65 70 75 80
 His Ala Ala Glu Arg Thr Val Glu Asp Val Phe Leu Arg Lys Phe Met
 85 90 95
 Trp Gly Thr Phe Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg
 100 105 110
 Arg Gly Asn Gln Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser
 115 120 125
 Pro His Lys Tyr Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser
 130 135 140
 Tyr Phe Tyr Lys Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser
 145 150 155 160
 Lys Val Val Tyr Lys Tyr Leu
 165

<210> 46
 <211> 281
 <212> PRT
 <213> Homo sapiens

<400> 46
 Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu Leu
 1 5 10 15
 Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val Gln Gly
 20 25 30
 Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser Pro Pro Asp
 35 40 45
 His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr Arg Pro Ser Gln
 50 55 60

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Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg Cys Cys Asp Pro Gly
 65 70 75 80
 Thr Ser Met Tyr Pro Ala Thr Ala Val Pro Gln Ile Asn Ile Thr Ile
 85 90 95
 Leu Lys Gly Glu Lys Gly Asp Arg Gly Asp Arg Gly Leu Gln Gly Lys
 100 105 110
 Tyr Gly Lys Thr Gly Ser Ala Gly Ala Arg Gly His Thr Gly Pro Lys
 115 120 125
 Gly Gln Lys Gly Ser Met Gly Ala Pro Gly Glu Arg Cys Lys Ser His
 130 135 140
 Tyr Ala Ala Phe Ser Val Gly Arg Lys Lys Pro Met His Ser Asn His
 145 150 155 160
 Tyr Tyr Gln Thr Val Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp
 165 170 175
 His Phe Asn Met Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu
 180 185 190
 Tyr Phe Phe Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr
 195 200 205
 Leu His Ile Met Lys Asn Glu Glu Glu Val Ala Ile Leu Phe Ala Gln
 210 215 220
 Val Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu
 225 230 235 240
 Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg Glu
 245 250 255
 Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe Ser Gly
 260 265 270
 Tyr Leu Val Lys His Ala Thr Glu Pro
 275 280

<210> 47
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 47
 Met Lys Gly Ser Arg Ala Leu Leu Leu Val Ala Leu Thr Leu Phe Cys
 1 5 10 15
 Ile Cys Arg Met Ala Thr Gly Glu Asp Asn Asp Glu Phe Phe Met Asp
 20 25 30
 Phe Leu Gln Thr Leu Leu Val Gly Thr Pro Glu Glu Leu Tyr Glu Gly
 35 40 45

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Thr Leu Gly Lys Tyr Asn Val Asn Glu Asp Ala Lys Ala Ala Met Thr
50 55 60

Glu Leu Lys Ser Cys Ile Asp Gly Leu Gln Pro Met His Lys Ala Glu
65 70 75 80

Leu Val Lys Leu Leu Val Gln Val Leu Gly Ser Gln Asp Gly Ala Gly
85 90 95

Thr Asp Tyr Lys Asp Asp Asp Asp Lys
100 105

<210> 48

<211> 595

<212> PRT

<213> Homo sapiens

<400> 48

Met Leu Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Cys Gly Arg Val
1 5 10 15

Gly Ala Lys Glu Gln Lys Asp Tyr Leu Leu Thr Met Gln Lys Ser Val
20 25 30

Thr Val Gln Glu Gly Leu Cys Val Ser Val Leu Cys Ser Phe Ser Tyr
35 40 45

Pro Gln Asn Gly Trp Thr Ala Ser Asp Pro Val His Gly Tyr Trp Phe
50 55 60

Arg Ala Gly Asp His Val Ser Arg Asn Ile Pro Val Ala Thr Asn Asn
65 70 75 80

Pro Ala Arg Ala Val Gln Glu Glu Thr Arg Asp Arg Phe His Leu Leu
85 90 95

Gly Asp Pro Gln Asn Lys Asp Cys Thr Leu Ser Ile Arg Asp Thr Arg
100 105 110

Glu Ser Asp Ala Gly Thr Tyr Val Phe Cys Val Glu Arg Gly Asn Met
115 120 125

Lys Trp Asn Tyr Lys Tyr Asp Gln Leu Ser Val Asn Val Thr Ala Ser
130 135 140

Gln Asp Leu Leu Ser Arg Tyr Arg Leu Glu Val Pro Glu Ser Val Thr
145 150 155 160

Val Gln Glu Gly Leu Cys Val Ser Val Pro Cys Ser Val Leu Tyr Pro
165 170 175

His Tyr Asn Trp Thr Ala Ser Ser Pro Val Tyr Gly Ser Trp Phe Lys
180 185 190

Glu Gly Ala Asp Ile Pro Trp Asp Ile Pro Val Ala Thr Asn Thr Pro
195 200 205

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Ser Gly Lys Val Gln Glu Asp Thr His Gly Arg Phe Leu Leu Leu Gly
 210 215 220
 Asp Pro Gln Thr Asn Asn Cys Ser Leu Ser Ile Arg Asp Ala Arg Lys
 225 230 235 240
 Gly Asp Ser Gly Lys Tyr Tyr Phe Gln Val Glu Arg Gly Ser Arg Lys
 245 250 255
 Trp Asn Tyr Ile Tyr Asp Lys Leu Ser Val His Val Thr Ala Leu Thr
 260 265 270
 His Met Pro Thr Phe Ser Ile Pro Gly Thr Leu Glu Ser Gly His Pro
 275 280 285
 Arg Asn Leu Thr Cys Ser Val Pro Trp Ala Cys Glu Gln Gly Thr Pro
 290 295 300
 Pro Thr Ile Thr Trp Met Gly Ala Ser Val Ser Ser Leu Asp Pro Thr
 305 310 315 320
 Ile Thr Arg Ser Ser Met Leu Ser Leu Ile Pro Gln Pro Gln Asp His
 325 330 335
 Gly Thr Ser Leu Thr Cys Gln Val Thr Leu Pro Gly Ala Gly Val Thr
 340 345 350
 Met Thr Arg Ala Val Arg Leu Asn Ile Ser Tyr Pro Pro Gln Asn Leu
 355 360 365
 Thr Met Thr Val Phe Gln Gly Asp Gly Thr Ala Ser Thr Thr Leu Arg
 370 375 380
 Asn Gly Ser Ala Leu Ser Val Leu Glu Gly Gln Ser Leu His Leu Val
 385 390 395 400
 Cys Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Trp Thr Trp Gly
 405 410 415
 Ser Leu Thr Leu Ser Pro Ser Gln Ser Ser Asn Leu Gly Val Leu Glu
 420 425 430
 Leu Pro Arg Val His Val Lys Asp Glu Gly Glu Phe Thr Cys Arg Ala
 435 440 445
 Gln Asn Pro Leu Gly Ser Gln His Ile Ser Leu Ser Leu Ser Leu Gln
 450 455 460
 Asn Glu Tyr Thr Gly Lys Met Arg Pro Ile Ser Gly Val Thr Leu Gly
 465 470 475 480
 Ala Phe Gly Gly Ala Gly Ala Thr Ala Leu Val Phe Leu Tyr Phe Cys
 485 490 495
 Ile Ile Phe Val Val Val Arg Ser Cys Arg Lys Lys Ser Ala Arg Pro
 500 505 510

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Ala Val Gly Val Gly Asp Thr Gly Met Glu Asp Ala Asn Ala Val Arg
 515 520 525

Gly Ser Ala Ser Gln Gly Pro Leu Ile Glu Ser Pro Ala Asp Asp Ser
 530 535 540

Pro Pro His His Ala Pro Pro Ala Leu Ala Thr Pro Ser Pro Glu Glu
 545 550 555 560

Gly Glu Ile Gln Tyr Ala Ser Leu Ser Phe His Lys Ala Arg Pro Gln
 565 570 575

Tyr Pro Gln Glu Gln Glu Ala Ile Gly Tyr Glu Tyr Ser Glu Ile Asn
 580 585 590

Ile Pro Lys
 595

<210> 49
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 49
 Met Glu Lys Phe Pro Trp Gln Lys Leu Arg Val Arg Thr Gly Cys Gly
 1 5 10 15

Gly Pro Gln Val Cys Gly Gly Tyr His Leu Cys Leu Ala Val Leu Met
 20 25 30

Gly Ile Pro Ser Pro Arg Glu Gly Cys Arg Ser Trp Asp Val Ala Ala
 35 40 45

Glu Val Trp Thr Gln Arg Pro Arg Ala Ala Val Leu Leu Leu Thr Gly
 50 55 60

Gly Gly Glu Arg Thr Pro Arg Thr Gln Pro Gly Thr Glu Glu Ala Thr
 65 70 75 80

Gly Pro Gly Ala Cys Ala Gly Trp Ile Ala Gln Asp Thr Pro Asn Pro
 85 90 95

Phe Ser Lys Ala Gly Ala Gly Ala Gly Gly Glu Gly Thr Arg Gln Ser
 100 105 110

Ala Gly Arg Ala Gly Gly Glu Pro Gly Gly Gly Gly Glu Gly Pro Trp
 115 120 125

Val Arg Val Ser Trp Pro Pro Leu Leu Gln Gly Arg Gln Gly Gly
 130 135 140

<210> 50
 <211> 196
 <212> PRT
 <213> Homo sapiens

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<400> 50
 Met Leu Ser Leu Glu Phe Leu Ser Trp Ser Val Ser Pro Phe Pro Ser
 1 5 10 15
 Pro Arg His Pro Ser Thr Pro His Arg Ser His Arg Ala Ser Pro His
 20 25 30
 Pro Asp Arg Pro Pro Lys Asn Lys Gly Glu Val Ile Arg Ala Ser Ala
 35 40 45
 Ala Ser Arg Gln Thr Gln Gln Cys Arg Val Gly Val Leu Gly Val Leu
 50 55 60
 Asp Asp Pro Gly Pro Glu Leu Glu Leu Gln Glu Ala Ala Val Val Val
 65 70 75 80
 Arg Arg Leu Arg His Glu Ala Gly Lys Gly Gln Gly His Gln Arg Leu
 85 90 95
 Gln Glu Val Leu Gly Lys Leu His Ile Leu Pro Val Val Gln Pro Arg
 100 105 110
 Val Leu Gly His Asp Ala Ile Ala Gly Val Glu Gly Pro Gln Val His
 115 120 125
 Val Gln Val Val Ala Phe Ala Val Leu His Ala Glu Lys Val Ala Leu
 130 135 140
 Asp Arg Leu Leu Pro Tyr Glu Ala Ala Leu Ile His His Arg Ala Gly
 145 150 155 160
 Leu Cys Pro Pro Gln Leu Leu Ala Val Ala His Val Leu Gln Val Asp
 165 170 175
 Ala Gln Val His Val Val Val Pro Trp Asp Asp Val Pro Val Ala Gly
 180 185 190
 Gly Pro Gln Gln
 195

<210> 51
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 51
 Met Arg Glu Gly Trp His Trp Gln Glu Glu Ser Thr Arg Thr Arg Met
 1 5 10 15
 Gly Ser Asp Leu Gln Ile Tyr Gln Met Val Met Pro Thr Gly Ser Arg
 20 25 30
 Gly Tyr Ala Trp Gly His Pro Gly Ser Ser Gln Ser Trp Arg Glu Thr
 35 40 45
 Gly Met Ser Arg Arg Pro Ala Gly Pro Ser Thr Ala Pro Asp Pro Lys
 50 55 60

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Lys Val Phe Cys Pro Arg Phe Arg Glu Pro Cys Ala Leu Gly Gln Gly
 65 70 75 80
 Gln Ser Phe Gly Asn Ser Ala Gly Ser Gly Ala Arg Leu Ala Arg Phe
 85 90 95
 Lys Ser Trp Leu Tyr Arg Phe Gly Ala Arg Trp Ala Trp Gly Gly Val
 100 105 110
 Ala Val Ser Leu Cys Leu Ser Cys Phe Gln Asp Ala Gly Pro Leu Ala
 115 120 125
 Ala Gly Val Ala Ser Ala Thr Arg Gly Arg Ala Gly Pro Ala Pro Gly
 130 135 140
 Gly Pro Leu Trp Leu Pro Gly Asp Ser Thr Pro Arg Ala Cys Val Pro
 145 150 155 160

<210> 52
 <211> 226
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Val Gln Gln Gly Leu Leu Lys Asn Gly Ala His Gln Cys Ala His
 1 5 10 15
 Leu Ile Cys Ile Asn Glu Ala His Val Gly Gly Gly His Arg Glu Leu
 20 25 30
 Asp Ile Pro Gln His Arg Arg Gly Pro Leu Lys Leu His Leu Gly His
 35 40 45
 Arg Glu Leu Glu Ser Gln Val His Tyr His Ile Gln Gly Glu Glu Gly
 50 55 60
 Leu Glu Ser Arg Val Gly Gly Cys Gly Gln Asp Leu His Glu Gly Leu
 65 70 75 80
 Gln Pro Gln Gly Gly Val Val Cys Val Glu His Gly His Arg Cys Gly
 85 90 95
 Thr Gln Pro His Leu Glu His His Arg His Gly Leu Gly Lys Leu Ala
 100 105 110
 Gly His Leu Arg Asp Glu Pro Ala Gln Ser Arg Gly Val Gln Gln Val
 115 120 125
 Val Ile Arg Pro Gln Leu Pro Cys Asp Val Gln Val Glu Gly Thr Gly
 130 135 140
 Leu Leu Gln Gln Gln Glu Arg Arg Val Lys Gln Leu Leu Gly Glu Ala
 145 150 155 160

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<210> 54

<211> 314
 <212> PRT
 <213> Homo sapiens

<400> 54

Arg	Val	Asp	Pro	Arg	Val	Arg	Gly	Arg	Val	Gly	Phe	Glu	Ser	Leu	Lys
1				5					10					15	
Ser	Asp	Phe	Asn	Lys	Tyr	Trp	Val	Pro	Cys	Val	Trp	Phe	Thr	Asn	Leu
			20					25					30		
Ala	Ala	Gln	Ala	Arg	Arg	Asp	Gly	Arg	Ile	Arg	Asp	Asp	Ile	Ala	Leu
		35					40					45			
Cys	Leu	Leu	Leu	Glu	Glu	Leu	Asn	Lys	Tyr	Arg	Ala	Lys	Cys	Ser	Met
	50					55					60				
Leu	Phe	His	Tyr	Asp	Trp	Ile	Ser	Ile	Pro	Leu	Val	Tyr	Thr	Gln	Val
	65				70					75					80
Val	Thr	Ile	Ala	Val	Tyr	Ser	Phe	Phe	Ala	Leu	Ser	Leu	Val	Gly	Arg
				85					90					95	
Gln	Phe	Val	Glu	Pro	Glu	Ala	Gly	Ala	Ala	Lys	Pro	Gln	Lys	Leu	Leu
			100					105					110		
Lys	Pro	Gly	Gln	Glu	Pro	Ala	Pro	Ala	Leu	Gly	Asp	Pro	Asp	Met	Tyr
		115					120					125			
Val	Pro	Leu	Thr	Thr	Leu	Leu	Gln	Phe	Phe	Phe	Tyr	Ala	Gly	Trp	Leu
	130					135					140				
Lys	Val	Ala	Glu	Gln	Ile	Ile	Asn	Pro	Phe	Gly	Glu	Asp	Asp	Asp	Asp
145					150					155					160
Phe	Glu	Thr	Asn	Gln	Leu	Ile	Asp	Arg	Asn	Leu	Gln	Val	Ser	Leu	Leu
				165					170					175	
Ser	Val	Asp	Glu	Met	Tyr	Gln	Asn	Leu	Pro	Pro	Ala	Glu	Lys	Asp	Gln
			180					185					190		
Tyr	Trp	Asp	Glu	Asp	Gln	Pro	Gln	Pro	Pro	Tyr	Thr	Val	Ala	Thr	Ala
		195					200					205			
Ala	Glu	Ser	Leu	Arg	Pro	Ser	Phe	Leu	Gly	Ser	Thr	Phe	Asn	Leu	Arg
	210					215					220				
Met	Ser	Asp	Asp	Pro	Glu	Gln	Ser	Leu	Gln	Val	Glu	Ala	Ser	Pro	Gly
225					230					235					240
Ser	Gly	Arg	Pro	Ala	Pro	Ala	Ala	Gln	Thr	Pro	Leu	Leu	Gly	Arg	Phe
				245					250					255	
Leu	Gly	Val	Gly	Ala	Pro	Ser	Pro	Ala	Ile	Ser	Leu	Arg	Asn	Phe	Gly
			260					265					270		
Arg	Val	Arg	Gly	Thr	Pro	Arg	Pro	Pro	His	Leu	Leu	Arg	Phe	Arg	Ala
			275				280						285		

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Glu Glu Gly Gly Asp Pro Glu Ala Ala Ala Arg Ile Glu Glu Glu Ser
290 295 300

Ala Glu Ser Gly Asp Glu Ala Leu Glu Pro
305 310

<210> 55
<211> 196
<212> PRT
<213> Homo sapiens

<400> 55
Asn Thr Thr His Tyr Arg Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser
1 5 10 15

Gly Ile Pro Gly Ser Thr His Ala Ser Ala Gly Ser Val Ala Asp Ser
20 25 30

Asp Ala Val Val Lys Leu Asp Asp Gly His Leu Asn Asn Ser Leu Ser
35 40 45

Ser Pro Val Gln Ala Asp Val Tyr Phe Pro Arg Leu Ile Val Pro Phe
50 55 60

Cys Gly His Ile Lys Gly Gly Met Arg Pro Gly Lys Lys Val Leu Val
65 70 75 80

Met Gly Ile Val Asp Leu Asn Pro Glu Ser Phe Ala Ile Ser Leu Thr
85 90 95

Cys Gly Asp Ser Glu Asp Pro Pro Ala Asp Val Ala Ile Glu Leu Lys
100 105 110

Ala Val Phe Thr Asp Arg Gln Leu Leu Arg Asn Ser Cys Ile Ser Gly
115 120 125

Glu Arg Gly Glu Glu Gln Ser Ala Ile Pro Tyr Phe Pro Phe Ile Pro
130 135 140

Asp Gln Pro Phe Arg Val Glu Ile Leu Cys Glu His Pro Arg Phe Arg
145 150 155 160

Val Phe Val Asp Gly His Gln Leu Phe Asp Phe Tyr His Arg Ile Gln
165 170 175

Thr Leu Ser Ala Ile Asp Thr Ile Lys Ile Asn Gly Asp Leu Gln Ile
180 185 190

Thr Lys Leu Gly
195

<210> 56
<211> 231
<212> PRT
<213> Homo sapiens

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<400> 56

Leu Arg Ala Ala Leu Pro Ala Leu Leu Leu Pro Leu Leu Gly Leu Ala
 1 5 10 15

Ala Ala Ala Val Ala Asp Cys Pro Ser Ser Thr Trp Ile Gln Phe Gln
 20 25 30

Asp Ser Cys Tyr Ile Phe Leu Gln Glu Ala Ile Lys Val Glu Ser Ile
 35 40 45

Glu Asp Val Arg Asn Gln Cys Thr Asp His Gly Ala Asp Met Ile Ser
 50 55 60

Ile His Asn Glu Glu Glu Asn Ala Phe Ile Leu Asp Thr Leu Lys Lys
 65 70 75 80

Gln Trp Lys Gly Pro Asp Asp Ile Leu Leu Gly Met Phe Tyr Asp Thr
 85 90 95

Asp Asp Ala Ser Phe Lys Trp Phe Asp Asn Ser Asn Met Thr Phe Asp
 100 105 110

Lys Trp Thr Asp Gln Asp Asp Asp Glu Asp Leu Val Asp Thr Cys Ala
 115 120 125

Phe Leu His Ile Lys Thr Gly Glu Trp Lys Lys Gly Asn Cys Glu Val
 130 135 140

Ser Ser Val Glu Gly Thr Leu Cys Lys Thr Ala Ile Pro Tyr Lys Arg
 145 150 155 160

Lys Tyr Leu Ser Asp Asn His Ile Leu Ile Ser Ala Leu Val Ile Ala
 165 170 175

Ser Thr Val Ile Leu Thr Val Leu Gly Ala Ile Ile Trp Phe Leu Tyr
 180 185 190

Lys Lys His Ser Asp Ser Arg Phe Thr Thr Val Phe Ser Thr Ala Pro
 195 200 205

Gln Ser Pro Tyr Asn Glu Asp Cys Val Leu Val Val Gly Glu Glu Asn
 210 215 220

Glu Tyr Pro Val Gln Phe Asp
 225 230

<210> 57

<211> 367

<212> PRT

<213> Homo sapiens

<400> 57

Met Ser Ser Asn Gly Ile Pro Glu Cys Tyr Ala Glu Glu Asp Glu Phe
 1 5 10 15

Ser Gly Leu Glu Thr Asp Thr Ala Val Pro Thr Glu Glu Ala Tyr Val

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20										25										30																			
Ile	Tyr	Asp	Glu	Asp	Tyr	Glu	Phe	Glu	Thr	Ser	Arg	Pro	Pro	Thr	Thr																								
35										40										45																			
Thr	Glu	Pro	Ser	Thr	Thr	Ala	Thr	Thr	Pro	Arg	Val	Ile	Pro	Glu	Glu																								
50										55										60																			
Gly	Ala	Ile	Ser	Ser	Phe	Pro	Glu	Glu	Glu	Phe	Asp	Leu	Ala	Gly	Arg																								
65										70										75										80									
Lys	Arg	Phe	Val	Ala	Pro	Tyr	Val	Thr	Tyr	Leu	Asn	Lys	Asp	Pro	Ser																								
85										90										95																			
Ala	Pro	Cys	Ser	Leu	Thr	Asp	Ala	Leu	Asp	His	Phe	Gln	Val	Asp	Ser																								
100										105										110																			
Leu	Asp	Glu	Ile	Ile	Pro	Asn	Asp	Leu	Lys	Lys	Ser	Asp	Leu	Pro	Pro																								
115										120										125																			
Gln	His	Ala	Pro	Arg	Asn	Ile	Thr	Val	Val	Ala	Val	Glu	Gly	Cys	His																								
130										135										140																			
Ser	Phe	Val	Ile	Val	Asp	Trp	Asp	Lys	Ala	Thr	Pro	Gly	Asp	Val	Val																								
145										150										155										160									
Thr	Gly	Tyr	Leu	Val	Tyr	Ser	Ala	Ser	Tyr	Glu	Asp	Phe	Ile	Arg	Asn																								
165										170										175																			
Lys	Trp	Ser	Thr	Gln	Ala	Ser	Ser	Val	Thr	His	Leu	Pro	Ile	Glu	Asn																								
180										185										190																			
Leu	Lys	Pro	Asn	Thr	Arg	Tyr	Tyr	Phe	Lys	Val	Gln	Ala	Gln	Asn	Pro																								
195										200										205																			
His	Gly	Tyr	Gly	Pro	Ile	Ser	Pro	Ser	Val	Ser	Phe	Val	Thr	Glu	Ser																								
210										215										220																			
Asp	Asn	Pro	Leu	Leu	Val	Val	Arg	Pro	Pro	Gly	Gly	Glu	Pro	Ile	Trp																								
225										230										235										240									
Ile	Pro	Phe	Ala	Phe	Lys	His	Asp	Pro	Ser	Tyr	Thr	Asp	Cys	His	Gly																								
245										250										255																			
Arg	Gln	Tyr	Val	Lys	Arg	Thr	Trp	Tyr	Arg	Lys	Phe	Val	Gly	Val	Val																								
260										265										270																			
Leu	Cys	Asn	Ser	Leu	Arg	Tyr	Lys	Ile	Tyr	Leu	Ser	Asp	Asn	Leu	Lys																								
275										280										285																			
Asp	Thr	Phe	Tyr	Ser	Ile	Gly	Asp	Ser	Trp	Gly	Arg	Gly	Glu	Asp	His																								
290										295										300																			
Cys	Gln	Phe	Val	Asp	Ser	His	Leu	Asp	Gly	Arg	Thr	Gly	Pro	Gln	Ser																								
305										310										315										320									
Tyr	Val	Glu	Ala	Leu	Pro	Thr	Ile	Gln	Gly	Tyr	Tyr	Arg	Gln	Tyr	Arg																								
325										330										335																			

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Gln Glu Pro Val Arg Phe Gly Asn Ile Gly Phe Gly Thr Pro Tyr Tyr
 340 345 350

Tyr Val Gly Trp Tyr Glu Cys Gly Val Ser Ile Pro Gly Lys Trp
 355 360 365

<210> 58

<211> 565

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (270)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 58

Met Thr Gly Leu Val Asp Leu Thr Leu Ser Arg Asn Ala Ile Thr Arg
 1 5 10 15

Ile Gly Ala Arg Ala Phe Gly Asp Leu Glu Ser Leu Arg Ser Leu His
 20 25 30

Leu Asp Gly Asn Arg Leu Val Glu Leu Gly Thr Gly Ser Leu Arg Gly
 35 40 45

Pro Val Asn Leu Gln His Leu Ile Leu Ser Gly Asn Gln Leu Gly Arg
 50 55 60

Ile Ala Pro Gly Ala Phe Asp Asp Phe Leu Glu Ser Leu Glu Asp Leu
 65 70 75 80

Asp Leu Ser Tyr Asn Asn Leu Arg Gln Val Pro Trp Ala Gly Ile Gly
 85 90 95

Ala Met Pro Ala Leu His Thr Leu Asn Leu Asp His Asn Leu Ile Asp
 100 105 110

Ala Leu Pro Pro Gly Ala Phe Ala Gln Leu Gly Gln Leu Ser Arg Leu
 115 120 125

Asp Leu Thr Ser Asn Arg Leu Ala Thr Leu Ala Pro Asp Pro Leu Phe
 130 135 140

Ser Arg Gly Arg Asp Ala Glu Ala Ser Pro Ala Pro Leu Val Leu Ser
 145 150 155 160

Phe Ser Gly Asn Pro Leu His Cys Asn Cys Glu Leu Leu Trp Leu Arg
 165 170 175

Arg Leu Ala Arg Pro Asp Asp Leu Glu Thr Cys Ala Ser Pro Pro Gly
 180 185 190

Leu Ala Gly Arg Tyr Phe Trp Ala Val Pro Glu Gly Glu Phe Ser Cys
 195 200 205

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Glu Pro Pro Leu Ile Ala Arg His Thr Gln Arg Leu Trp Val Leu Glu
 210 215 220
 Gly Gln Arg Ala Thr Leu Arg Cys Arg Ala Leu Gly Asp Pro Ala Pro
 225 230 235 240
 Thr Met His Trp Val Gly Pro Asp Asp Arg Leu Val Gly Asn Ser Ser
 245 250 255
 Arg Ala Arg Ala Phe Pro Asn Gly Thr Leu Glu Ile Gly Xaa Thr Gly
 260 265 270
 Ala Gly Asp Ala Gly Gly Tyr Thr Cys Ile Ala Thr Asn Pro Ala Gly
 275 280 285
 Glu Ala Thr Ala Arg Val Glu Leu Arg Val Leu Ala Leu Pro His Gly
 290 295 300
 Gly Asn Ser Ser Ala Glu Gly Gly Arg Pro Gly Pro Ser Asp Ile Ala
 305 310 315 320
 Ala Ser Ala Arg Thr Ala Ala Glu Gly Glu Gly Thr Leu Glu Ser Glu
 325 330 335
 Pro Ala Val Gln Val Thr Glu Val Thr Ala Thr Ser Gly Leu Val Ser
 340 345 350
 Trp Gly Pro Gly Arg Pro Ala Asp Pro Val Trp Met Phe Gln Ile Gln
 355 360 365
 Tyr Asn Ser Ser Glu Asp Glu Thr Leu Ile Tyr Arg Ile Val Pro Ala
 370 375 380
 Ser Ser His His Phe Leu Leu Lys His Leu Val Pro Gly Ala Asp Tyr
 385 390 395 400
 Asp Leu Cys Leu Leu Ala Leu Ser Pro Ala Ala Gly Pro Ser Asp Leu
 405 410 415
 Thr Ala Thr Arg Leu Leu Gly Cys Ala His Phe Ser Thr Leu Pro Ala
 420 425 430
 Ser Pro Leu Cys His Ala Leu Gln Ala His Val Leu Gly Gly Thr Leu
 435 440 445
 Thr Val Ala Val Gly Gly Val Leu Val Ala Ala Leu Leu Val Phe Thr
 450 455 460
 Val Ala Leu Leu Val Arg Gly Arg Gly Ala Gly Asn Gly Arg Leu Pro
 465 470 475 480
 Leu Lys Leu Ser His Val Gln Ser Gln Thr Asn Gly Gly Pro Ser Pro
 485 490 495
 Thr Pro Lys Ala His Pro Pro Arg Ser Pro Pro Pro Arg Pro Gln Arg
 500 505 510
 Ser Cys Ser Leu Asp Leu Gly Asp Ala Gly Cys Tyr Gly Tyr Ala Arg

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515 520 525
 Arg Leu Gly Gly Ala Trp Ala Arg Arg Ser His Ser Val His Gly Gly
 530 535 540
 Leu Leu Gly Ala Gly Cys Arg Gly Val Gly Gly Ser Ala Glu Arg Leu
 545 550 555 560
 Glu Glu Ser Val Val
 565

<210> 59
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 59
 Met Glu Lys Ala Lys Glu Arg Met Lys Lys Gln Ala Gln Asn Gly Lys
 1 5 10 15
 Ser His Ile Leu Gln Arg Asn Pro Leu Asn Ser Pro Gly Asn Leu Gln
 20 25 30
 Glu Met Lys Met Thr Lys Thr Ala Lys Lys Arg Lys Thr Lys Ala Ala
 35 40 45
 Leu Arg Val Glu Met Arg Ala Thr Thr Gln Glu Thr Gln Leu Gln Thr
 50 55 60
 Cys Arg Lys Pro Val Lys Gly Pro Asn Tyr His Asn Glu Cys Cys Ile
 65 70 75 80
 Leu Arg Glu Thr Thr Arg Arg Leu Tyr Val Trp Leu Ser Asn Ile Leu
 85 90 95
 Gly Phe Asp Met Asn Gln His Ile Val Leu Val Val Ile Asp Arg Thr
 100 105 110
 Pro Val Cys Met Tyr Ile Ile His Ile Pro Leu Cys Cys Val Ser Gly
 115 120 125
 Gly Lys Asp Ile Leu Ala Phe Phe Lys Ser Tyr
 130 135

<210> 60
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 60
 Met Ala Arg Pro Arg Pro Arg Glu Tyr Lys Ala Gly Asp Leu Val Phe
 1 5 10 15
 Ala Lys Met Lys Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Glu Leu
 20 25 30

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Pro Glu Gly Ala Val Lys Pro Pro Ala Asn Lys Tyr Pro Ile Phe Phe
 35 40 45

Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro
 50 55 60

Tyr Lys Glu Tyr Lys Asp Lys Phe Gly Lys Ser Asn Lys Arg Lys Gly
 65 70 75 80

Phe Asn Glu Gly Leu Trp Glu Ile Glu Asn Asn Pro Gly Val Lys Phe
 85 90 95

Thr Gly Tyr Gln Ala Ile Gln Gln Gln Ser Ser Ser Glu Thr Glu Gly
 100 105 110

Glu Gly Gly Asn Thr Ala Asp Ala Ser Ser Glu Glu Glu Gly Asp Arg
 115 120 125

Val Glu Glu Asp Gly Lys Gly Lys Lys Lys Lys Lys Asn Leu Val Pro
 130 135 140

Asn
 145

<210> 61

<211> 104

<212> PRT

<213> Homo sapiens

<400> 61

Met Met Gln Leu Asn Phe Ile Arg Thr Arg Leu Val Gly Thr Gly Val
 1 5 10 15

Ala Thr Ser Arg Ala Arg Arg Gly Thr Gly Glu Gly Ser Gln Gly Cys
 20 25 30

His Pro Val Leu Leu Val Ile Val Val Leu Val Ile Gly Thr Gly Thr
 35 40 45

Val Leu Thr Ala Gln His Leu His Gln Gln Leu Asp Gln Leu Arg Leu
 50 55 60

Val His Trp Leu Gln Ala Ile Tyr Ala Gly Leu Glu Phe Ser His Cys
 65 70 75 80

Cys Leu Gly Ile Phe Val Asp Ile Val Leu Ala Gln Gly Pro Leu Ile
 85 90 95

Glu Leu Leu Trp Gly Pro His Gln
 100

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